

# Sociodemographic Characteristics of Trans Persons in Belgium: A Secondary Data Analysis of Medical, State, and Social Data

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**Abstract** By performing secondary data analyses of existing medical, social, and state data, this study examined the sociodemographic profile of trans persons in Belgium and gains knowledge on those who are functionally invisible in traditional epidemiological studies or clinical samples. Based on medical interventions, post-operative transsexual persons were selected from a social survey data set, to compare their sociodemographic profile with available data on legal sex changes from the Belgian National Register and with published data on clinical samples of post-operative transsexual persons. Furthermore, based on self-chosen gender identity categories in the social survey data, transsexual participants were compared with the transgender participants (those people feeling neither female nor male, or both female and male, or otherwise). The sociodemographic data on the post-operative transsexual persons from the three datasets appeared to be very similar. Based on identity cate

gories, the data on transsexual and transgender persons from the social survey showed differences in marital status and employment. Transsexual persons were significantly more often divorced than transgender persons. Both groups differed significantly in employment status. Information about transgender people (or the “in-between” group) is too often lacking from studies but can be obtained when identity instead of medical criteria are used in research.

**Keywords** Gender dysphoria · Transsexualism · Transgender · Demography · Gender identity

## Introduction

Gender nonconformity refers to the extent to which a person's gender identity, role, or expression differs from the cultural norms prescribed for people of a particular sex (Institute of Medicine, 2011). Some gender nonconforming people experience gender dysphoria at some points in their lives (Coleman et al., 2012). Gender dysphoria is broadly defined as the discomfort or distress that is caused by a discrepancy between a person's gender identity and sex assignment at birth (and the associated gender role and/or primary and secondary sex characteristics) (Fisk, 1974; Knudson, De Cuypere, & Bockting, 2010). Treatment is available to assist people experiencing such distress to explore their gender identity and find a gender role that is comfortable for them (Bockting & Goldberg, 2006), so in a large part gender dysphoria can be alleviated through treatment (Murad et al., 2010).

It is important to differentiate between the syndrome (gender dysphoria, also known as gender identity disorder [GID] or transsexualism) and the trans person. Trans is used as a shorthand term to refer to transsexual, transgender, transvestite, and other gender dysphoric and gender variant persons.

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Because epidemiological studies on prevalence and incidence of gender dysphoria or GID or transsexualism have not been conducted, crude estimates of prevalence have relied on indirect methods such as clinical samples (Zucker & Lawrence, 2009). The criteria used in these clinical samples can be very diverse. Whereas some researchers use GID according to the DSM-IV-TR as an inclusion criterion (Hoenig & Kenna, 1974; Wilson, Sharp, & Carr, 1999), others use the criterion of undergoing hormonal treatment (Bakker, van Kesteren, Gooren, & Bezemer, 1993; Eklund, Gooren, & Bezemer, 1988; Gómez-Gil, Trilla, Salamero, Godas, & Valdes, 2009; Kreukels et al., 2012; van Kesteren, Gooren, & Megens, 1996), count the number of name changes (Wålinder, 1971; Weitze & Osburg, 1996), or rely on post-genital surgery data only (De Cuypere et al., 2007). These various inclusion criteria lead to different prevalence figures and, in turn, the numbers yielded by these studies can be considered minimum estimates at best (Coleman et al., 2012).

In addition, changing time frames can have an enormous impact on the prevalence of transsexualism. Zucker and Lawrence (2009) found that prevalence estimates of GID in adults based on clinic-referred samples suggest an increase in more recent cohorts. It, however, remains unclear whether this represents a true increase in prevalence or simply greater comfort in the seeking out of clinical care as professionals become more attuned to the psychosocial and biomedical needs of trans people or that there is a lower symptom threshold at which individuals decide to seek treatment. The increase in more recent cohorts can lead in some cases to changes in the associated sex ratio. For instance, in Sweden, the male–female sex ratio changed from 1.2:1 for the period 1965–1985 to 1.8:1 for the period 1986–2002 (Olsson & Möller, 2003) and in Germany it changed from 2:1 for the period 1970–1994 to 1.2:1 for the period 1994–1998 (Garrels et al., 2000). Furthermore, different ways in which gender roles are manifested in certain cultures might also have an impact on the reported sex ratios. For example, the sex ratio in many Western European countries (3:1) (Bakker et al., 1993; Burns, Farrell, & Brown, 1990; De Cuypere et al., 2007; Eklund et al., 1988; Hoenig & Kenna, 1974; O’Gorman, 1982; Sørensen & Hertoft, 1982; van Kesteren et al., 1996; Verschoor & Poortinga, 1988; Wålinder, 1971; Weitze & Osburg, 1996; Wilson et al., 1999) is very different from that in the Eastern European countries (1:5.5) (Godlewski, 1988; Herman-Jeglińska, Grabowska, & Dulko, 2002).

Whatever criterion, time frame or locality is used, the sociodemographic picture we have based on clinical samples leaves out a potential large number of trans persons. A large scale social research report in Europe has shown that around 50 % of trans persons do not wish or need medical and/or surgical treatment (European Union agency for Fundamental Rights, 2013; Motmans, 2010). Others who would prefer medical and/or surgical can face many obstacles, such as not daring too, being afraid of prejudice from the care providers, not knowing where to go

(European Union agency for Fundamental Rights, 2013; Motmans, 2010). It might also be the case that some perceive the costs of treatment (the fear of losing their job, anticipated discrimination, etc.) as being greater than the benefits. Furthermore, high numbers of non-eligibility and drop-outs are reported among those who did seek medical assisted gender transition. In a recent study of the European network for the investigation of gender incongruence, a mean dropout percentage of 17.7 % was reported (Kreukels et al., 2012). In sum, it is clear that we lack information on the sociodemographic background of many trans persons when relying on clinical reports only.

In this article, we wish to fill this gap by exploring and comparing the sociodemographic profile of female and male transsexual and transgender people, based on the available BNR state, clinical, and social survey data sources in Belgium. In this article, we will use the terms “transsexual” and “transgender” in two different ways, based on medical steps taken or based on self-chosen gender identity. We use the term “trans” as the general denominator for the diverse group of individuals who cross or transcend culturally-defined categories of gender. This study will help us to gain knowledge on those transgender people who are invisible in clinical or official data reports, at least for the Belgian case.

## Method

### Participants

For the secondary data analyses, we used three existing data sets in Belgium.

### Social Survey

The study into the social and legal situation of trans people in Belgium, commissioned by the Federal Institute for the Equality of Women and Men (IEWM), took place in 2008 and aimed to map the discrimination and inequalities trans persons experienced in practice, policy, and legislation (Motmans, 2010). It was the first social and legal study of this kind ever conducted in Belgium, addressed directly to “those who are either gender variant, engage in cross-dressing, are transgender (in the broadest possible sense) or transsexual” (Motmans, 2010). Those who chose to participate could link to the (anonymous) survey, accessible through the website [www.transsurvey.be](http://www.transsurvey.be), download the questionnaire from the website, or request a paper-and-pencil version. The cleaned social survey data set consisted of 240 participants (4 paper-and-pencil, 236 online). A total of 175 people reported assigned male at birth and 65 people assigned female at birth. We refer to these data as the “social survey data” throughout this article. Besides questions on lived experiences and discrimination, the survey contained questions on sex assigned at birth, psychological gender (gender identity), medical steps taken, and medical steps

**Table 1** Classification of participants based on sex assigned at birth and self-reported gender identity (social survey data)

Gender identity		Sex assigned at birth	
		Male	Female
Fully female	<i>n</i>	76	0
	%	44.2	0
Mainly female	<i>n</i>	42	3
	%	24.4	4.8
Both male and female	<i>n</i>	41	9
	%	23.8	14.3
Otherwise	<i>n</i>	1	5
	%	.6	7.9
Neither male nor female	<i>n</i>	3	8
	%	1.7	12.7
Mainly male	<i>n</i>	4	12
	%	2.3	19
Fully male	<i>n</i>	5	26
	%	2.9	41.3

desired or planned in the near future, among many others. This information was used to regroup the participants into meaningful categories for data analysis.

First, based on the information about sex assigned at birth and gender identity, participants could be regrouped into transvestites, transgender, and transsexual participants (Motmans, 2010). The question about psychological gender identity was framed as follows: “In your feelings, thoughts and fantasies are you?” Answers to this question ranged from “fully female,” “mainly female,” “both female and male,” “mainly male,” “fully male,” “neither male nor female,” “otherwise,” and “don’t know.” Whenever the sex assigned at birth was male and the gender identity was “fully female” or “mainly female,” the participant was classified as a male-to-female transsexual ( $n = 118$ ). The participant was categorized as a female-to-male transsexual ( $n = 38$ ) when the gender assigned at birth was female and the gender identity was “fully male” or “mainly male.” The participant was classified as a male-to-female transgender ( $n = 45$ ) when the gender assigned at birth was male and the gender identity was “both male and female,” “neither male nor female” or “other.” The participant was classified as a female-to-male transgender ( $n = 22$ ) when the gender assigned at birth was female and the gender identity was “both male and female,” “neither male nor female” or “other.” Participants whose birth sex matched with their psychological gender, i.e., born male and “fully male” or “mainly male” psychological gender ( $n = 9$ ) or born female and “fully female” or “mainly female” psychological gender ( $n = 3$ ), were labelled transvestites and were not included in the following comparison. Participants who answered “don’t know” with regard to gender identity were considered as missing value ( $n = 5$ ). According to the classification method based on gender identity and sex assigned at birth, the social survey contained a total of 223 participants (out of 240),

with 156 transsexuals and 67 transgender persons. The results of the classification method based on gender identity and sex assigned at birth are shown in Table 1.

Second, the participants could be classified based on the available medical information (Motmans, 2010). Those participants who stated that they ever had sought psychological or medical help for gender identity issues ( $n = 138$ ) were asked to complete a list that contained all possible medical interventions they already underwent in their gender reassignment process, as well as a list of the interventions they had planned in the future. Based on this list, a typology of phases was created. For this typology, we used the ordering of the medical phases as common in Belgium where the social gender transition goes mostly parallel with the hormonal therapy or sometimes even precedes the hormonal therapy. Phase 1 consisted of those who had at least started counseling with a psychiatrist, a psychologist or another care provider. Phase 2 consisted of those who were currently living in the desired gender role. Participants in Phase 3 were those taking hormones. Participants who had undertaken at least one of the following steps were classified as being in Phase 4: epilation, breast enlargement or breast removal or reduction, facial feminization surgery, Adam’s apple reduction, voice-raising or voice-lowering operation, speech therapy, hair transplant, and/or liposuction. Participants in Phase 5 were post-SRS, with SRS in this context referring to having undergone vaginoplasty for MtF transsexuals and hysterectomy and ovariectomy for FtM transsexuals (whether or not combined with genital surgery such as phalloplasty or metadoioplasty). These phases were ordered cumulatively: participants in Phase 4 who were living in the desired gender role and/or taking hormones and/or having conversations, were placed only in Phase 4. Participants who were currently in Phase 4, but who had planned intervention for Phase 5, were taken together with participants currently in Phase 5 and were considered to be transsexuals (FtM or MtF).

Table 2 provides an overview of the current medical phases of these 138 participants, according to their sex assigned at birth. Forty-four (31.9 %) out of the 138 participants, with 27 MtF and 17 FtM transsexuals, were in Phase 5. Out of the 62 participants of Phase 4, 40 planned to undergo SRS in the near future, with 35 MtF and 5 FtM transsexuals. These two groups (Phase 5 and Phase 4 with Phase 5 planned in the near future,  $n = 84$ ) were considered to be transsexuals who were comparable with the clinical and BNR data.

### *Belgian National Register*

In Belgium, as in many other West European countries, only those who meet the legal statutory criteria as described in the law of 10 May 2007 on transsexualism (Belgian Government, 11 July 2007), can officially register a change of sex designation in the birth, death, and marriage register. This law establishes the right to change one’s forename and sex on their birth certificate and makes the official change of sex designation an administrative

**Table 2** An overview of the current medical phases according to sex assigned at birth (social survey data)

Current medical phase		Sex assigned at birth	
		Male	Female
Phase 1: counseling	<i>n</i>	6	4
	%	6	10.5
Phase 2: real life experience	<i>n</i>	6	3
	%	6	7.9
Phase 3: hormones	<i>n</i>	4	9
	%	4	23.7
Phase 4: body alterations	<i>n</i>	57	5
	%	57	13.2
Phase 5: sex reassignment surgery	<i>n</i>	27	17
	%	27	44.7

matter. According to Article 2 of the Law on Transsexuality, which is inserted into Article 62b of the Belgian Civil Code, a person who legally wishes to change sex must demonstrate this to the registrar by presenting a statement from the psychiatrist and surgeon that he/she meets the following conditions: (1) the individual has a constant and irreversible inner conviction that they belong to the sex other than the one stated on their birth certificate; (2) the individual has undergone gender reassignment that makes him/her correspond with the (other) gender to which the individual in question is convinced he/she belongs, as far as this is possible and justified from a medical point of view; and (3) the individual is no longer capable of producing children in accordance with his/her previous gender. The combination of criteria 2 and 3 implies that at least a gonadectomy is performed. Genital surgery for female-to-male transsexuals (metadoioplasty or phalloplasty) is not a legal prerequisite. Furthermore, divorce is no longer a prerequisite for a married person when applying for a legal change of gender marker in the birth certificate because civil marriage was opened up to people of the same sex in 2003 (Senaeve & Uytterhoeven, 2008).

Registration is accompanied by a change of the personal national registration number, which is gender-specific. These changes in register of national registration numbers have been systematically coded since 1993 in the Belgian National Register (BNR). From 1993 to 2008, the BNR recorded 442 sex reassignments (303 from male-to-female and 139 from female-to-male). In the present study, we were able to use data from 1993 to 2008, as published by the IEWM (Motmans, 2010). The released data were, however, restricted to gender, age, civil status, and region due to privacy reasons. We refer to these data as the “BNR data” throughout the article.

### Belgian Gender Identity Clinicians

For the third data source, we relied on data reported by De Cuypere et al. (2007) on the prevalence and demography of

transsexualism in Belgium. De Cuypere et al. sent out demographic questionnaires to be completed for each of their transsexual patients to all plastic surgeons ( $n = 188$ ) as well as all gender teams (Antwerp, Bruges, Ghent, and Liège) in Belgium. The target population of this retrospective study consisted of all Belgian transgendered individuals who had undergone sex reassignment surgery (SRS) since 1985, when the Belgian medical world started to acknowledge the diagnosis of transsexualism and accept SRS as one step in the treatment of choice. For the group of male-to-female transsexuals, SRS meant vaginoplasty; for the female-to-male transsexuals, this meant having undergone hysterectomy/ovariectomy.

The questionnaires included the following demographic items: first consultation, marital status, age, place of residence, children, educational level, occupation, and age at which SRS had been performed. A reminder message was sent to non-responders, as well as a personal follow-up by telephone to those who agreed to collaborate. To eliminate double reporting, the questionnaires were matched by birthdates and initials. For the clinical data, 42 plastic surgeons and all four gender teams collaborated and a total of 469 questionnaires were returned, including eight incomplete and 49 doubles. The clinical data included 412 transsexuals who had undergone the complete procedure of sex reassignment in Belgium during an 18-year period (1985–2003), with 292 male-to-female transsexuals and 120 female-to-male transsexuals. We refer to these data as the “clinical data” throughout the remainder of the article.

### Measures

#### *Comparing Self-Identity and Medical Phases using the Social Survey Data*

We compared the two classification methods (self-identity and medical phases) to analyze the overlap between gender identity and medical phases. In general, within the group born with a female body, we distinguished between the female-to-male (FtM) transsexuals and FtM transgender persons; within the group born in a male body, we distinguished between male-to-female (MtF) transsexuals and MtF transgender persons.

#### *Comparing Transsexual Participants over Three Data Sources*

To evaluate the participant group from the social survey, we compared the sociodemographic profile of the transsexual participants from the social survey data (classification based on medical Phases 4 with Phase 5 planned and Phase 5) with the available BNR state and clinical data. Information on the sex ratio, age, regional distribution, and civil status was available in all three data sources. However, information on having children and work status was not available in the BNR data due to privacy restrictions. Information on sexual orientation was

**Table 3** A cross-tabulation between classification methods: “medical phases” and “gender identity” (social survey data)

Gender identity		Current medical phase				
		Phase 1: counseling	Phase 2: real life experience	Phase 3: hormones	Phase 4: body alterations	Phase 5: sex reassignment surgery
MtF transsexual	<i>n</i>	2	3	3	45	27
	%	2.5	3.8	3.8	56.2	33.8
FtM transsexual	<i>n</i>	3	1	6	4	15
	%	10.3	3.4	20.7	13.8	51.7
MtF transgender	<i>n</i>	2	2	1	12	0
	%	11.8	11.8	5.9	70.6	0
FtM transgender	<i>n</i>	0	2	3	1	2
	%	0	25	37.5	12.5	25

*MtF* male-to-female, *FtM* female-to-male

not available in the BNR nor in the clinical data. Since we did not have access to the legal and clinical data set as a whole, we were not able to conduct statistical analyses of differences between the data sets.

#### *Comparing Transsexual with Transgender Participants using the Social Survey Data*

To sketch out the profile of the transgender participants, we compared their available sociodemographic characteristics with those transsexuals within the social survey data, using the categorization of gender identity.

## Results

### Comparing Self-Identity and Medical Phases using the Social Survey Data

The combination of both classification methods clearly showed that gender identity was not neatly tied with medical phases (Table 3).

### Comparing Transsexual Participants over Three Data Sources

Table 4 shows the sex ratios at the country and regional level for transsexuals over the three data sources. An overview of the other sociodemographic characteristics is shown in Table 5.

#### *Number and Sex Ratio in the Three Belgian Districts*

From Table 4, we can derive three major findings. First, we see that the majority of transsexuals (between 60 and 75 %) lived in Flanders, regardless of data source. Second, the sex ratios at the country level only differed slightly. The BNR data indicated that 69.1 % of sex reassignments took place by MtF transsexuals and

**Table 4** An overview of sex ratios on country and regional level for transsexuals

	BNR data			Clinical data			Social survey data (medical classification)		
	<i>n</i>	%	Sex ratio	<i>n</i>	%	Sex ratio	<i>n</i>	%	Sex ratio
Belgium									
Total	428		2.24	412		2.43	84		2.82
MtF	296	69.1		292	70.9		62	73.8	
FtM	132	30.9		120	29.1		22	26.2	
Flanders									
Total	258	60.3	2.23	309	75	2.51	50	63.3	2.57
MtF	178	69		228	73.8		36	72	
FtM	80	31		81	26.2		14	28	
Brussels Capital Region									
Total	58	13.5	2.05	47	11.4	1.61	9	11.4	3.5
MtF	39	67.2		29	61.7		7	77.8	
MtF	19	32.8		18	38.3		2	22.2	
Walloon									
Total	112	26.2	2.39	55	13.4	1.62	20	25.3	5.67
MtF	79	70.5		34	61.8		17	85	
FtM	33	29.5		21	38.2		3	15	

*BNR* Belgian National Register, *MtF* male-to-female, *FtM* female-to-male

30.9 % by FtM transsexuals. This sex ratio of 2.2:1 tallies to a certain extent with the sex ratio of 2.4:1 reported by gender clinicians (De Cuyper et al., 2007) as well as with the sex ratio of 2.8:1 in the social survey data. Third, the sex ratio differed strongly by region, but the BNR data indicated less disparity in sex ratios among the three regions compared to the sex ratios from the other two data sources. We found no significant sex differences regarding the three regions in the social survey data.



**Table 5** An overview of the sociodemographic characteristics of transsexuals

		BNR data		Clinical data <sup>a</sup>		Social survey data (medical classification)		
		<i>n</i>	M (%)	<i>n</i>	M (SD) (%)	<i>n</i>	M (SD)/ %	<i>t</i> or $\chi^2$
Age (years) (M, SD)	Total							9.28**
	MtF	296	38.98	292	32.65 (10.39)	52	44 (10.78)	
	FtM	132	34.31	120	28.48 (9.25)	18	35.28 (9.48)	
Civil status								9.31**
Married (%)	Total			60	14.6 %	24	29.3 %	
	MtF	NA		55	13.4 %	20	24.4 %	
	FtM	NA		5	1.2 %	4	4.8 %	
Unmarried (%)	Total			294	71.7 %	42	51.2 %	
	MtF	NA		185	45.1 %	27	32.9 %	
	FtM	NA		109	26.5 %	15	18.3 %	
Divorced (%)	Total			56	13.7 %	16	19.5 %	
	MtF	NA		51	12.4 %	15	18.3 %	
	FtM	NA		5	1.2 %	1	1.2 %	
Children (% yes)	Total					41		11.19**
	MtF			NA		37	59.7 %	
	FtM			NA		4	18.2 %	
Work status (%)								<1
Employed (%)	Total			253	63 %	54	64 %	
	MtF			178	62 %	40	64.5 %	
	FtM			75	64 %	14	63.6 %	
Unemployed	Total			58	14 %	24	29 %	
	MtF			40	14 %	19	30.6 %	
	FtM			18	15 %	5	22.7 %	
Otherwise non-working <sup>b</sup>	Total			93	23 %	6	7 %	
	MtF			69	24 %	3	4.8 %	
	FtM			24	21 %	3	13.6 %	

BNR Belgian National Register, *MtF* male-to-female, *FtM* female-to-male; *NA* not available

<sup>a</sup> Age from clinical data is age at first consultation

<sup>b</sup> Otherwise non-working participants consist of those participants living on health insurance or subsistence, those who were retired or student, and others not specified

\*  $p \leq .05$ ; \*\*  $p \leq .01$

### Age Distribution

According to the BNR data, the majority of sex reassignments took place between the ages of 26 and 55 years; the oldest person was 82 at the time when the sex reassignment was officially registered (Motmans, 2010). The clinical data revealed that patients were between 14 and 71 years old at their first consultation and that the age at which SRS was performed ranged from 17 to 73 years (De Cuypere et al., 2007). Similar patterns were found in the social survey data, with ages ranging from 15 to 64 years.

Overall, the mean age of FtM transsexuals was consistently lower than that of MtF transsexuals (Table 5). FtM transsexuals were approximately 4 years younger in mean age than the MtF transsexuals in the BNR data (age of official change of sex

registration) and the clinical data (age at first consultation) whereas the difference in mean age between FtM transsexuals and MtF transsexuals was significant in the social survey data ( $p = .003$ ).

### Civil Status

The comparison of the data on civil status revealed that the clinical data report 2.5 times more married transsexuals than in the BNR data. Because the average time between the start of a gender reassignment transition process and the official registration of the new sex was four years, we found that the high number of married patients (15 %) at first consultation could several years later be traced back to the higher number of divorced persons in the BNR data (24 %). The social survey

**Table 6** A comparison of gender differences and sex ratios on country and regional level for transsexual and transgender persons using the social survey (gender identity classification)

		Transsexual persons			Transgender persons			$\chi^2$
		<i>n</i>	%	sex ratio	<i>n</i>	%	sex ratio	
Belgium	Total	156		3.11	67		2.05	1.71
	MtF	118	75.6		45	67.2		
	FtM	38	24.4		22	32.8		
Flanders	Total	91		2.64	36		2.27	<1
	MtF	66	72.5		25	69.4		
	FtM	25	27.5		11	30.6		
Brussels Capital Region	Total	22		1.75	9		1.25	<1
	MtF	14	63.6		5	55.6		
	MtF	8	36.4		4	44.4		
Walloon	Total	37		17.50	16		1.67	8.98**
	MtF	35	94.6		10	62.5		
	FtM	2	5.4		6	37.5		

MtF male-to-female, FtM female-to-male

\* $p \leq .05$ , \*\* $p \leq .01$ 

data revealed lower rates of unmarried transsexuals (50.6 %) and much higher rates of married transsexuals (28.9 %). Furthermore, the clinical data and the social survey data revealed that the MtF transsexuals were more often married or already divorced compared to FtM transsexuals. The civil status for the social survey data showed significant differences in civil status between FtM and MtF transsexuals ( $p = .025$ ).

### Children

Whereas the clinical data showed that approximately 25 % of the transsexuals have children, the survey data indicated a much higher amount of 49 % of the transsexuals having children. Furthermore, the proportion of MtF transsexuals with children was significantly higher than that of FtM transsexuals ( $p \leq .001$ ). BNR data on children were unavailable.

### Work

Both the clinical and social survey data revealed that a high proportion of the transsexuals were employed (63 % in the clinical data, 64 % in the social survey data). There were no significant differences between FtM and MtF transsexuals in being employed or not.

However, transsexual participants differed largely in both data sets in their unemployment rate: 14 % of the transsexual participants from the clinical data were unemployed, whereas this raised up to 29 % in the social survey data. On the other hand, the amount of participants in the 'otherwise non-working'

group (retired, students and others) was relatively high (23 %) in the clinical data, and rather low (7 %) in the social survey data.

### Comparing Transsexual with Transgender Participants using the Social Survey Data

Table 6 compares the sex ratios on country and regional level for transsexual versus transgender persons within the social survey data using the categorization of gender identity; the comparison of other sociodemographic characteristics is shown in Table 7.

### Number and Sex Ratio in the Three Belgian Districts

As shown in Table 6, transsexual and transgender persons were higher in the Flemish Region compared to the Walloon Region and even lower in Brussels Capital Region. There were, however, differences between both groups with regard to their sex ratio: in the social survey, we counted 118 MtF transsexuals and 38 FtM transsexuals (sex ratio 3.1:1) and 45 MtF transgender persons and 22 FtM transgender persons (sex ratio 2.1:1). Only within the Walloon Region, significant differences were found between the FtM and MtF transsexual and transgender persons ( $p = .003$ ).

### Age Distribution

With regard to the mean age of transsexual and transgender people, we found no significant differences between both groups. We noticed the same tendency in mean age differences between males and females whereby those assigned female at birth were approximately 10 years younger than those assigned male at birth.

### Civil Status

With regard the participants' civil status, we found no significant differences between the group of transgender persons and the group of transsexuals. The majority of the transgender and transsexual persons (60 and 54 %, respectively) were unmarried. Approximately 30 % of the transsexual and transgender persons were married although those who were assigned male at birth were more often married than those assigned female at birth ( $p = .014$ ). Within the group of divorced persons, the proportion of MtF transsexuals was significantly higher than the proportion of MtF transgender persons ( $p = .038$ ).

### Children

The group of transgender persons did not differ significantly in having children when compared with the group of transsexuals. Approximately 37 % of the transgender persons reported having

**Table 7** A comparison of sociodemographic variables of transsexual and transgender persons from the social survey (gender identity classification)

		Transsexual persons		Transgender persons		<i>F</i> or $\chi^2$
		<i>n</i>	<i>M</i> ( <i>SD</i> )/ %	<i>n</i>	<i>M</i> ( <i>SD</i> )/ %	
Age ( <i>M</i> , <i>SD</i> )						<1
	MtF	101	42.38 (11.71)	41	41.34 (10.58)	
	FtM	33	32.12 (8.82)	20	32.00 (11.06)	
Civil status (%)						
Married	Total	46	29.7 %	20	30.3 %	2.35
	MtF	41	34.7 %	19	43.2 %	
	FtM	5	13.5 %	1	4.5 %	
Unmarried	Total	84	54.2	40	60.6 %	1.58
	MtF	52	44.1 %	20	45.5 %	
	FtM	32	86.5 %	20	90.9 %	
Divorced	Total	25	16.1 %	6	9.1	4.31*
	MtF	25	21.2 %	5	11.4 %	
	FtM	0	0 %	1	4.5 %	
Children (% yes)						2.56
	MtF	69	58 %	23	52 %	
	FtM	3	8 %	2	9 %	
Work status (%)						7.02*
Employed	Total	102	65 %	37	55 %	<1
	MtF	79	67 %	31	69 %	
	FtM	23	61 %	6	27 %	
Unemployed	Total	37	24 %	14	21 %	4.03
	MtF	27	23 %	6	13 %	
	FtM	10	26 %	8	36 %	
Other non-working	Total	17	11 %	16	24 %	1.46
	MtF	12	10 %	8	18 %	
	FtM	5	13 %	8	36 %	

MtF Male-to-female, FtM female-to-male

\*  $p \leq .05$ ; \*\*  $p \leq .01$ 

children whereas 46 % of the transsexuals have children. Almost all of these children were from participants who were assigned male at birth ( $n = 92$ ) whereas only 3 participants who were assigned female at birth had children.

### Work

The group of transgender persons differed significantly with the group of transsexuals when it comes to employment status ( $p = .03$ ). Within the group of transsexual participants, 65 % was employed, 24 % was unemployed and 11 % was 'otherwise non-working' (retired, students and others). Within the group of transgender participants, there were less persons employed (55 %) and more persons were 'otherwise non-working' (24 %), whereas the amount of unemployed participants was more or less the same (21 %).

### Discussion

In this study, we conducted secondary data analysis based on three different studies from Belgium: a social survey, a medical data set, and data on the change of sex designation in the national birth, death, and marriage register. The comparison of the group of transsexuals based on medical information with the available BNR and clinical data in our country revealed more similarities than differences. The overall higher proportion of transsexuals and transgender persons in Flanders compared to other Belgian regions can be explained by several factors, such as the overall less progressive attitude to transgenderism in the Walloon Region in general (Dierckx, Motmans, Meier, Dieleman, & Pezeril, 2014; Motmans, 2010), and by the small number of practitioners who specialize in gender identity matters (De Cuypere et al., 2007). The differences in sex ratio for transsex-



uals based on medical phases was more or less similar with the clinical and BNR data sets whereas the classification method based on gender identity revealed a somewhat higher sex ratio for transsexuals, due to the fact that those born male more often choose a transsexual than a transgender identity compared with those born female.

Regarding civil status, significant gender differences were found: MtF transsexuals (medical classification) more often had a history of marriage and divorce and more often reported having children than their FtM transsexual counterparts. MtF transsexuals are more likely to have been married to a female and to have children before their gender reassignment. MtF transsexuals seem to invest a lot of time in succeeding in their male role in society and in being a husband and father, before admitting they feel female and seek out medical help. Why MtF transsexuals differ from FtM transsexuals in this urge to succeed according to their male role, but still are overrepresented in the total group of transsexuals, needs further investigation.

These gender differences in civil status and parenthood can be partly explained by the differences between FtMs and MtFs in regard to onset age and sexual orientation. Previous studies have linked sexual orientation with onset age (Blanchard, 1985, 1989, 1994; Lawrence, 2008, 2009, 2010). Blanchard (1994) found in a sample of non-homosexual natal males that the stronger the early cross-gender feelings were, the sooner the patient was likely to present for clinical attention, although early cross-gender identity did not influence the probability of marrying or fathering children. Nieder et al. (2011) found that far more FtMs than MtFs appeared to have experienced an early onset transsexual development and that FtMs were at a younger age at clinical presentation than MtFs. In FtMs, early onset was largely overlapping with a sexual attraction towards females whereas early onset did not overlap with sexual attraction towards males to the same extent in MtFs.

The comparison between transsexuals and transgender persons based on gender identity classification showed that the age difference between FtM and MtF was consistent between the two identity groups. Although in general the civil status or having children did not differ between transsexuals and transgender persons, we did find a significantly higher proportion of transsexuals who were divorced, a difference that was due to the large group of MtF divorced transsexuals (21 %). Both groups also differed significantly in their overall employment status. Although transsexual participants did not differ from transgender participants in their unemployment rate (24 and 21 %, respectively), transgender persons were more often to be found in the otherwise non-working group (11 %) in comparison with transsexual participants (24 %). Given the small numbers of participants, these results must be interpreted with caution. Part of the explanation might be found in the fact that transsexual persons who fulfill social expectations about masculinity and femininity do relatively well job-wise (Motmans, Meier, & T'Sjoen, 2011; Vennix, 2010), but transgender persons who

cross the gender norms experience all kinds of problems on the labor market (Vennix, 2002). Another explanation might be found in the literature that reports that patients diagnosed as Gender Identity Disorders of Adolescence and Adulthood, Non-transsexual Type (GIDAANT), what we now would call transgender (non-transsexuals), have much higher prevalence rates of comorbid Axis I and II disorders than patients diagnosed with transsexualism (Bodlund & Armelius, 1994), which in turn might lead to unemployment.

In general, prevailing social as well as medical conventions and ideas, cultural and historical factors, legal rights, economic deprivation, and the availability and/or the high cost of medical treatment can inhibit trans persons from expressing themselves (De Cuypere et al., 2007; Eklund et al., 1988; Miach, Berah, Butcher, & Rouse, 2000). International research has already demonstrated the obstacles that exist in terms of health care and/or employment can prevent someone from living full-time in the desired gender role and accordingly adjusting their personal characteristics (Motmans, 2010; Whittle, Turner, & Al-Alami, 2007). Previous Belgian research indicated that many of these obstacles existed in the lives of trans people that hindered them in looking for psychological or medical help and that 60 % of the trans people who were not recorded by the medical professionals were indeed in need of help (Motmans, 2010). This implies that someone's self-described gender identity cannot be defined based on the medical steps one is willing or able to undertake nor does being gender variant automatically translate into a wish to undertake medical interventions to alter one's body.

Undergoing a gender transition is clearly not neatly tied to having a certain gender identity or can having a certain gender identity predict that one wishes to undergo certain medical procedures. It is striking to note that a higher percentage of FtM transsexuals were in the post-SRS group (44.5 %) when compared with MtF transsexuals (27 %), but still identified as "neither male nor female" and not mainly or fully as men. Further research is needed to examine the gender differences in gender identity and its correlation with medical assisted transition, but it seems that, especially the group born female self-reported a more fluid gender identity.

Gathering and analyzing information on the sociodemographic profile of trans people is a challenging task given the huge diversity within this group and, as we described in the Introduction, results largely depend on who is counted and how. Although this study provides crucial information on the broad group of trans persons, we are aware of the limitations of our data and of the impact of decisions in classification of participants. The fact that approximately a third of the social survey data set consisted of transgender participants does not automatically mean that this is an accurate reflection of the actual ratio between transsexuals and transgender persons. Further research in other countries is needed to contextualize our findings. In this regard, it is important to gather more information about the "in between" group of transgender persons, by using identity in addition to

medical criteria. Especially for those born female, this information can be crucial to complete the picture of the socioeconomic position of trans persons.

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